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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,770	03/18/2004	Tetsuo Kuwabara	250558US90X	4673

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EXAMINER

COVINGTON, RAYMOND K

ART UNIT PAPER NUMBER

1625

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/802,770

Applicant(s)

KUWABARA ET AL.

Examiner

Raymond Covington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claims 8-12 are objected to under 35 U.S.C. 112, second paragraph Pursuant to MPEP 2173.02 as clarified in the Memorandum of January 17, 2003, as failing to set forth the subject matter which applicant(s) regard as their invention.

Claim 8 recites a functional element comprising a photochromic. It is not clear what is meant by a photochromic per se. It is examiners understanding from the specification and other claims that applicants may intent, for example, a photochromic coating, composition or layer. However, the claim further recites that the photochromic sensitizes a wavelength. It is not clear what is meant by this recitation. Perhaps it is meant that the photochromic (?) is sensitive to or absorbs at a given wavelength or range. It is also not clear what constitutes a photochromic phenomenon. While this may read on, for example, a sunrise examiner has interpreted the phrase as part of the claim as a whole to mean a photochromic layer as part of a display element having particular absorption characteristics.

Claims 9-12 are objected to as depending from the objected to base claim.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Ghaddar et al J. Chem. Soc. Vol. 124 no. 28 pp 8285-8269 or Ceroni et al New J. Chem. Vol. 25 no. 8 pp 989-993.

Both Ghaddar et al and Ceroni et al teach bis[3,5-bis(phenylmethoxy)phenyl]methyl]-4,4'-bipyridinium compounds of the type recited in the claims. See, respectively, the abstracts of each. While the compounds are known per se notwithstanding their use, both references teach photo activity and absorption for these compounds.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scrinvasa et al US 6,037,471 taken with Baumann et al US 6,362,914, Ghaddar et al J. Chem. Soc. Vol. 124 no. 28 pp 8285-8269 or Ceroni et al New J. Chem. Vol. 25 no. 8 pp 989-993.

Scrinvasa et al teach electrochromic compounds as films or layers in mirrors in the same type manner claimed. See, for example, Table 3 which teaches dimethyl diphenyl dipyridinium compounds, column 2 lines 37-53 showing use of analogous photochromic compositions in mirrors and the desire to change colors by choose of photochromic composition. And column 3 lines 30-54, which also teaches factors in choosing the photochormic composition. Baunann et al teach is and analogous teaching showing compounds corresponding to, for example, claim 4. See, for example column 5 lines 55-65and column 6 lines 40-59. Note also column 5 lines 29-32 for additional components of the composition. Ghaddar et al and Ceroni et al are applied as in the previous rejection herein above and are applied to show the Scrinvasa et al and Baunann et al compound recited in claims 2 and 3 as well as also encompassed by claim 4.

The references Scrinvasa et al and Baunann et al differ from the claimed invention in that they do not employ the Scrinvasa et al US 6,037,471 taken with Baunann et al recited in the claims. However they do other teach the photochromic compounds per se which are otherwise obvious. Further, teachings in both references provide a reason to modify the teachings by using other analogous photochromic compounds such as those taught by the Ghaddar et al and Ceroni to

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obtain different colors and chromic effects using closely structurally related bipyridine compounds.

In the view of the art as whole it would have been obvious to one of ordinary skill to modify the teachings of the Scrinvasa et al and Baunann et al to include the bipyridine compounds of Ghaddar et al and Ceroni et al in order to obtain a particular chromic effect, e.g. absorption profile, as the results would not have been unexpected.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Covington whose telephone number is (571) 272-0681. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, C. Tsang can be reached on (571) 272-0562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Raymond Covington
Examiner
Art Unit 1625



RKC